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CEREAL INVESTIGATIONS
☆ MAY 3 - 1913 ☆
RECEIVED

BUREAU OF PLANT INDUSTRY,
OFFICE OF DRY LAND AGRICULTURE.

May 3, 1913.

REPORT FOR WEEK ENDING APRIL 26, 1913:

AKRON:

The past week has been one of the best for field work that we have had this spring, although there were some snow and flurries on Wednesday. Wheat came up about the 17th and the oats and barley are just coming up. Seeding of small grain on the station is finished but that is about all the field work that the men have been able to do. Precipitation for the week, 1.23 inches, maximum temperature, 72, minimum, 27.

AMARILLO:

The week opened up with light showers followed by a general rain which will prove very beneficial to the farmers as it was badly needed. Total precipitation for the week, 1.67, minimum temperature, 32, maximum, 75.

BELLEFOURCHE:

Soil blowing has been much more noticeable this spring than any preceding season, all of the fallow and green manured plats being blown bare. Some of the winter wheat plats were slightly injured by blowing soil but have recovered. No team work was done on any of the plats during the week. Precipitation during the week, .04, maximum temperature 80, minimum, 24.

DALHART:

Weather conditions have been quite favorable for field work during the latter part of the week while the first part was cold and disagreeable with considerable rain. The crops are not as advanced as they should be and are estimated to be about 10 or 12 days later than at this time last year. Only a small per cent of the spring grains seeded over a month ago have come up but growth will probably be stimulated by the recent rains. Precipitation for the week, 85, minimum temperature, 30, maximum, 76.

DICKINSON:

During the week all of the oats, barley and pea plats were sown. Some of the farmers in this locality have not as yet put a drill into the ground. Traction plowing outfits have engagements ahead up to the first of June. Total precipitation for the week, .10, minimum temperature, 19, maximum, 75.

EDGELEY:

The week of A prl 14th to 19th has been quite warm but the past week has been somewhat cooler. A ll of the plats with the exception of the spring plowed plats for corn and flax were plowed or disced and harried and made ready for seeding by the end of the week. Sweet clover, alfalfa and brome grass plats came through the winter in good shape and are coming along now with a good stand. Red clover is also becoming green but the stand is not as good as with the other crops. Maximum temperature for the week, 76.5, minimum, 23.

HA YS:

The weather has been cool throughout the week. All winter wheat looks fine and is making good growth. Spring wheat, oats and barley have all germinated fairly well and a good stand secured. Newly sown alfalfa and brome germinated and a fair stand of both was secured. The late rains however seem to have almost destroyed it and at present it looks as if it may be necessary to resow them. Precipitation for the week, 1.58.

HETTINGER:

During the past week all the oats and barley plats were disced in preparation for seeding and all the plats on the project were harrowed crossways. This method seemed to be the only one by which the ridges, which have occurred from constantly working the plats lengthwise, could be leveled. The general appearance of all the plats is much improved. High winds have prevailed during the week but thus far there seems to be no sign of rain. Because of the cool weather no grain is up but all the wheat seems to have sprouted. Maximum temperature, 80, minimum, 20.

HUNTLEY:

Winter rye and wheat have survived the winter in excellent condition. The wheat on the corn plats is smaller than on other plats but the stands are about the same. Wheat and peas were seeded the 17th and oats and barley on the 23d and 24th. Maximum temperature for the week, 78, minimum, 25, with no precipitation. Director F. B. Linfield, of the Montana Experiment Station, visited the farm on the 24th. Mr. Hansen, the Superintendent, has been installing a septic tank on the ground where the weather instruments were located last season.

JUDITH BASIN:

Weather conditions although cold and dry have been favorable for getting the spring crops seeded in time. Practically all the spring seeding will be completed by the first of May. Early seeded winter wheat is in good condition while late seeded is in only fair condition, with the poor stand due to winter killing. Precipitation for the week, .10, maximum temperature, 66, minimum, 15.

NORTH PLATTE:

Seeding of the spring grains were delayed until April 15 and 16 on account of the intermittent periods of cold and snow. This is the latest seeding date of small grains in the history of the station. The soil is in excellent physical condition and contains plenty of moisture to insure rapid germination. Winter wheat is growing rapidly and stooling well. Mr. Burr went to Denver and Cheyenne on the 17th and seeded the rotation plats at the Cooperative Station at Archer, near Cheyenne, Wyoming, where dry land work will be carried on during the present season. Precipitation for the week, .49, maximum temperature, 81, minimum, 31.

SCOTTSBLUFF:

No moisture this spring with the exception of the rain last week of about .2 of an inch. The wind has been blowing a gale all of the week, making all outside work almost unbearable. In order to get the oats in a wind shield had to be made both in front and back of the drill. Spring wheat varieties were up by the first of the week but the winds have left not even a trace of what was there. Oats on the dry land rotations were seeded and harrowed. Plat A of the M.C. work on the winter wheat is in as bad shape this spring as last. On account of the exposed position most of this wheat is blown out.

TUCUMCARI:

The first part of the week was very cool and damp. Precipitation for the period was 3.26 inches, most of which fell in the form of a slow rain. This has put a fine seasoning in the ground and will enable the farm work on the station to progress rapidly. Maximum temperature for the week, 78, minimum, 31. On the morning of the 24th and 25th considerable ice was noticed in exposed places. No crops had been planted so no damage was done except to the fruit trees in some of the orchards in the vicinity of Tucumcari.

WILLISTON:

The past week has been very irregular and it seemed more like winter than spring. There was no rain during the week but there is no immediate need for more moisture. There were three heavy frosts during the week, with a minimum temperature of 13, maximum, 82. Friday a heavy ice formed on the evaporation tank and this frost will no doubt do considerable damage to the tree buds. Crops are not up yet so no damage has been done them.

CEREAL INVESTIGATIONS
☆ MAY 13 1913 ☆
RECEIVED

BUREAU OF PLANT INDUSTRY,
OFFICE OF DRY LAND AGRICULTURE.

May 10, 1913.

REPORT FOR WEEK ENDING MAY 3, 1913.

MANDAN:

The station work is progressing nicely. Three crews of man have been employed in the excavation, concrete mixing, and carpenter work. Three carloads of lumber from the Potlatch Lumber Company were unloaded last week. The third car of cement is also received and a fourth car ordered.

The present status of the work is about as follows:

Implement shed and barn:- foundations completed; soil from the excavation of other buildings has been hauled in so as to bring the floor up to grade; the studding are in place on all outside walls and sheathing is being put on at present.

Bunk house:- excavation has been completed and foundation put in; outside of foundation has been filled in to grade.

Office and laboratory building:- basement excavation and foundation completed; concrete forms will be removed tomorrow and used for foundation work on the mess house.

Mess house:- basement excavation completed; ready to set concrete forms.

Superintendent's residence:- basement excavation completed but not footings for other walls.

Cottages:- basement excavation of one completed; the other one has been staked out and is ready for excavating.

No work has been done on the assistant superintendent's residence. Since this building will not be needed for some time work on it will likely be left until last.

Seed house:- a 7x11' excavation 9' deep has been made for the pump room and a 12" concrete wall and pump foundation put in. The pump is being installed today. The Mandan Electric Company will also install today a second hand 3-H.P. electric motor which will be used until our new motor arrives. This company has also constructed an excellent electric transmission line.

I have purchased a second hand 30-bbl. galvanized iron tank which will be installed on a 10' standard and connected with the pump. A pipe line will run from this tank to all the buildings, which will give us a constant supply of water under pressure for concrete mixing, mortar mixing, etc. All water used to date on the station has been hauled from Mandan and has proved rather expensive. As soon as our pump has been in operation for a few days I shall send you a gallon sample of water which I think it would be well to have analyzed. Mr. Thorberg has used water from our well for various purposes and pronounces it first class.

Mr. Pfaender and I recently located a road to the station crossing the main draw near the large oak tree. In order to maintain a grade not to exceed 5% a circuitous road following the south bank of the

green-house ravine and landing on high ground was located, as shown on road plat which is being forwarded you under separate cover. This will be a side-hill road practically the entire distance from the ravine to the top. It will certainly make a scenic driveway but rather expensive to construct, consequently no work will be done on this road until you arrive. For most hauling a more direct road will be constructed as soon as possible, as shown on the plat. This road will have a uniform grade of 8% from the ravine to the top. This grade is the same as the grade to the viaduct over the railroad tracks. All hauling to the station so far has been over a grade of 14.7% for a distance of 150'. Since the larger teams haul a load of 3600 pounds up this steep grade I figure that we can haul about as large loads as will be desirable up a grade of 8%. I hope to have this latter road ready in time to be used for all brick hauling. Where the road crosses the ravine a 36' culvert with a 2-1/2 x 4' opening has been constructed, with 8' spreading wings on both up and down stream ends. The maximum fill in crossing the ravine is 14'6". The roadway width is 18'. A blue print of the culvert plan will be forwarded you in a day or two. The forms are being taken from the culvert today.

Instead of buying stone for window sills we find that they can be made of concrete on the ground for about 40% of the cost of stone. We are planning on using concrete window sills on all buildings.

The six horses recently purchased are all doing good work. A bid was forwarded to you yesterday covering the purchase of another team which is not as good a team as those already purchased but will answer very well for much of our work.

The five-acre plat secured from the Reform school has been given a deep plowing and prepared for planting. A large number of varieties of hardy vegetables has been planted on a portion of this plat, the remainder is being reserved for potatoes and hot climate vegetables, such as sweet corn, vines, tomatoes, etc.

The two-acre plat on the west side of the station is also prepared for planting. A few specimens each of a number of native shrubs and trees as well as seed of some of the native trees have already been planted.

I received your letter of the thirtieth regarding Caragana seed and enclosing a letter from Mr. Dorsett. I think that we have anticipated all his suggestions with the exception of the one concerning the purchase of several thousand Siberian crab seedlings to furnish stock for future grafting. I think the suggestion a very good one but do not know of any nurseries in Canada. I would suggest that Mr. Dorsett order about 3,000 of these seedlings for delivery at Mandan. Mr. Pfaender is in direct charge of the nursery work and can give it most of his time this summer. All such work will therefore be well taken care of.

We either have already received or have orders out for a few plants each of all the shrubs, fruits, and trees carried by northwestern nurseries that are likely to prove adapted to this section.

The ten pounds of Caragana seed will be planted as soon as it arrives.

The soil at present is very dry and considerable nursery stock is being temporarily heeled-in or stored, hoping that a rain will provide better planting conditions.

The preparation of the ground for the wind-break planting will be completed tomorrow. This preparation is quite thorough, consisting of a double discing of the sod, followed by plowing 15" deep with a Spaulding's deep tillage disc plow. The soil is then harrowed, disced again, and harrowed. It takes six good horses to handle the Spaulding plow but it does fine work.

On the advice of Prof. Waldron the cottonwood and Norway poplar trees have been omitted from the wind-break proper planting, since they are such rapid growers that they retard or crowd out the more desirable varieties. A strip 20' west of the main wind-break is being prepared for the cottonwoods and Norway poplars. Planting plans of each of the plats under cultivation will be forwarded to you as soon as the plantings are completed.

Bids for supplying the station with 1,000 bushels of oats will be opened tomorrow. The brick bids were forwarded to you yesterday and bids covering mill work on four buildings went forward Saturday.

Mr. Jackson is now preparing lumber specifications for bids to supply rough lumber for the office, mess house, superintendent's residence and two cottages.

For sewage disposal I am planning on septic tanks combined with cesspools, one septic tank being used for two or three buildings with a cesspool to take care of the outflow. This system was successfully used here in Mandan by hotels previous to the installation of a city sewage system.

AKRON:

The past week has been quite favorable for field work but the low temperatures for the greater part of the week has somewhat retarded plant growth. Dr. Shantz reached here last Monday and will stay about two weeks. Dr. Briggs visited the station on Tuesday and staid one day. Precipitation for the week only a trace, maximum temperature 83, minimum 32.

AMARILLO:

All the small grains made a good growth this week, especially the spring wheats. Some seed have germinated since the rains and all of the spring seeded crops will have good stands. The winter wheat plats have poor stand, but these will be reseeded. Winter rye is beginning to shoot but the stand is very uneven. Max. temp. for week 84, min. 46, precipitation .09 (on 2nd).

BELLEFOURCHE:

The first part of the week was warm and most of the grain came up but made very little growth on account of cool weather during the last part. The grain on spring plowing is not up yet and probably will not be up until after a rain. Max. temp. 89, min. 26, precipitation for April .25 inch.

DALHART:

Due largely to the rains of last week native vegetation as well as farm crops, especially spring grains, have made considerable growth during the last week. The winter grains have not improved and it is doubtful if more than half a stand will come through the long drought. Maximum temperature for week 86, minimum 38.

DICKINSON:

Weather conditions for the past week have been rather unfavorable for very rapid growth of plants, low average temperatures and high winds having prevailed. Wheat sown on the 17th and 18th of April began to shoot through on the 3rd of May. Max. temp. 83, min. 27, precipitation for week .06 (snow).

EDGELEY:

Severe winds from the southwest prevailed the first part of the week while the latter part of the week was quite cold. All of the plats for corn were plowed. Max. temp. 83, min. 31, precipitation .11

GARDEN CITY:

All of the spring crops have been harrowed and in spite of the late spring are looking excellent. If conditions continue favorable some excellent results may be expected. Max. temp. 91.5, min. 17, precipitation 1.08.

HAYS:

High winds have prevailed throughout the week. On May 2 there was a heavy rainfall, accompanied by some hail, which no doubt has done considerable damage to the crops. After this shower the rain gauge showed 3.79 in. and the hail gauge 4.14 in. which is no doubt nearer correct, the next morning another shower occurred, giving .32 in. more rain, making a total of 4.46 for the storm. The largest part of this rain, however, was lost by run-off. Max. temp. for month of April 86, min. 26.

HETTINGER:

High winds and cold weather still prevail and the growth of grain is very slow. Wheat has come through the ground but has no chance to attain any size because of the constant freezing back. Alfalfa and brome grass are making good growth but the M. red clover which was sown last June is entirely winter killed. No precipitation max. temperature 87, minimum 21.

HUNTLEY:

Weather conditions for the past week have been quite favorable for growing crops. A few days have been quite windy. Wheat and peas are up. The brome grass was given a very light discing and winter wheat and brome were harrowed. Maximum temperature 82, minimum 31, precipitation .11.

JUDITH BASIN:

Due to stormy weather very little field work was done during the past week. Five inches of snow fell on the 3rd. Maximum temperature 56, minimum 24, precipitation .37.

NORTH PLATTE:

Weather conditions during the past week with the exception of two days, have been very favorable for the growth of small grain. Winter wheat on corn ground has begun to turn yellow in spots, due to lack of moisture. Max. temp. 88, min. 32, precipitation .02.

SCOTTSBLUFF:

All of the grain on the rotations is coming up. Rye and brome grass is beginning to show the effect of dry weather. The moisture determinations for the past two weeks show no moisture at the depth of six feet, and in some of the plats but very little moisture at the 5 ft. borings.

TUCUMCARI:

The first planting and real farming for the season was begun on the C. C. plats and rotations on Monday. The ground was in excellent condition for rapid germination. Max. temp. 85, min. 44. Farming operations in the county are progressing rapidly.

WILLISTON:

The week has been very cold and unfavorable to germination. The rotation wheat is up at this date. The oat plats are a trifle drier than they were last fall. The green manured plats seem to be in very good condition. Max. temp. 72, min. 24.

FIELD MEETING:

We intend to hold a field meeting this year. Every field man connected with this office is expected to contribute something to this meeting and should begin to prepare his material at once and write Mr. Cole at Denver concerning the matter.

CEREAL INVESTIGATIONS
☆ MAY 1. 1913 ☆
RECEIVED

BUREAU OF PLANT INDUSTRY,
OFFICE OF DRY LAND AGRICULTURE.

May 17, 1913.

REPORT FOR WEEK ENDING MAY 10, 1913.

MANDAN:

All land that we figured on using this year is now in shape for planting only that it is very dry on the surface. However, a big variety of the earlier vegetables have been planted but these will require rain before they will come up. We practically have had no rain since early in April and that was only a light one.

The piece of land rented from the Reform School is only being used for annuals. Aside from the early vegetables we have also planted 100 hills of melons and cucumbers under small glass frames for forcing. We also expect to plant about one acre of potatoes for the purpose of determining the best distance apart for the hills, using Early Ohios and Rural New Yorkers.

The rest of this land will be planted to the later and more tender vegetables, and to cabbage and tomatoes which are still in the hot-bed here in town.

On the creek bottom piece in the southwest corner we are planting a large variety of nursery stock. Apple trees for scions, plums for buds, shrubs and bush fruits for propagation purposes, small trees for later use on the grounds, Russian Olive, Buckthorn etc. for the purpose of securing our own seed in a few years, Willows and Poplars for cuttings, an assortment of wild fruits for the purpose of selecting best individuals for propagation and improvement, ash and box elders seeds for growing seedlings. Aside from all this we now have in our solar beds or callousing beds about 6 or 7 thousand cuttings of various willows and poplars, most of them from native or local trees, which will be planted here as soon as we have had a rain.

The Windbreak planting was begun on Wednesday, and up to today the 500 Scotch Pine, the 500 White Spruce, some ash and some Norway spruce have been planted. We are forced to haul water to these trees after planting but it works quickly with a tank on truck which we have rented from the cemetery, our well now being in working shape.

Breaking has been started on the field lying east of the quarter section line and south of the barn.

The Civic League is very anxious to start a park this year near the center of town and have requested me to assist them with the plans which I have agreed to do and so far have already spent several evenings with them and in drawing up plans for the park. I am glad to help them out this way as they are very hard up for money and still they are exerting all their efforts towards this park. Did I assume the correct attitude in this matter? I am doing it gratis and not during official hours.

AMARILLO:

The week has been wet, cool and cloudy and the small grains and field peas have responded well. Mr. Rothgeb arrived from Washington to take up the sorghum work. The farmers in the neighborhood are taking a great deal of interest in silos this year and representatives of the various manufacturers have been active in pushing their respective makes. Max. Temp. for week, 77, min.45, precipitation 1.38.

DALHART:

Most of the crops and especially the alfalfa have been making a rapid growth since the rains. The soil is wet down to a considerable depth and works well. Farmers are optimistic over prospects of a good crop this year and are preparing to put out a large acreage. Max. Temp. for week, 80, min. 43, precipitation 1.15

GARDEN CITY:

Max. temp. for the week 88, min. 38.5, precipitation 1.88 in. 1.75 in. of this fell between 4 and 6 P. M. on Friday, and considerable of it was lost on account of runoff.

EDGELEY:

The past week has been quite uniformly cool and windy. Owing to the prevailing cool weather the grain has been somewhat slow in coming up, but by the end of the week everything that had been seeded was up, although in many cases somewhat unevenly. Max. temp. for week, 66, min. 28, precipitation, none.

TUCUMCARI:

The spring wheat, oats and barley planted on April 28 and 29 in the C. C. and rotation plats is up to a good stand. Mr. Cole visited the station the latter part of the week and made a trip with the Superintendent by auto about forty miles south of the station to the "Plains Country". Considerable winter wheat is grown annually on the plains and it was found in good condition and making a satisfactory growth. Max. temp. for week, 82, min. 41, precipitation .20 in.

WILLISTON:

Wheat, oats rye, and peas are coming along nicely and a very even stand is expected. Corn and flax will be seeded this week. The warm weather the latter part of the week has started plant growth but the soil is rather dry at the surface. Max. temp. for week, 75, min. 22, precipitation .16 in.

AKRON:

The past week has been favorable for small grain although it would probably have grown faster if it had been warmer. Max. temp. for week, 81, minimum 39, precipitation .82 in.

ARDMORE:

The last three days of the week were very unfavorable for farm work due to a heavy mist which fell continuously. The soil is warming up very slowly and the corn plats will not be planted for another week. Winter rye plats came through the winter in good condition and are making a good growth this spring. Winter wheat suffered somewhat from the severe winter but will not have to be

HETTINGER:

An unusually large acreage of corn is to be put in this year for feed as a herd of dairy cows is soon to be purchased for the station. Plans are being made for the erection of asilo. The weather remains cool and fairly dry although the air was unusually humid during the week. Max. temp. for week, 64, min. 18, precipitation,.04 in.

BELLEFOURCHE:

The week as a whole was very cool and crops made little growth. There was not enough rain to be of any benefit. The soil in the plats of winter rye and wheat is beginning to crack and unless rain comes soon these crops will begin to suffer noticeably. Max. temp. for week, 72, min. 27, precipitation .08 in.

DICKINSON:

During the past week all spring sowing and planting were practically completed. Oats and barley sown on the 23rd of April came up during the latter part of the week.

The experiment station has purchased a Van Brunt 12 disk drill, a John Deere corn planter, and an improved alfalfa drill.

Max. temp. for the week, 73, min. temp. 24, precipitation .01 (melted snow).

HUNTLEY:

During the week the weather has been cloudy and rather cool for this time of the year. Alfalfa and flax were seeded and the corn plats to be spring plowed were disked. Max. temp. for week, 71, min. 31, precipitation .25 in.

SCOTTSBLUFF:

The edging up of the plats on the dry land work was started during the week. Corn plats were plowed and put in shape for planting. On the 10th the corn was planted on these plats with the exception of the listed plats.

NORTH PLATTE:

Winter grains except on fallow plats have not made any growth for over two weeks. Grain on fallow plats has made some growth and does not show the effect of drought at this time. Winter wheat and rye will probably not recover without considerable rain and even then a maximum yield cannot be obtained. A fairly good stand of oats was secured at the last seeding. The latter part of the week was quite cool with some rain. Although this did not permit any permanent relief for winter grains, they were able to hold their own. Max. temp. for week, 74, min. 40, precipitation .56 in.

GENERAL NOTES:

The field men will please note that under new regulations of the Office of Records, expense accounts submitted covering travel must be accompanied by the used transportation stubs, (or else they should be sent in prior to sending in the account), otherwise the account will be held up pending receipt of the stubs. This applies also to leave of absence slips. No accounts will be passed unless the leave slips have been returned, properly filled in, showing date when the man reported for duty after taking leave.

In signing expense accounts, the men will please note that such accounts must be signed exactly the same as the Letter of Authorization is made out - that is if the L. A. is addressed F. H. Smith, the account must be signed F. H. Smith, and not Frank H. Smith, and vice versa, otherwise we have to make out a certificate and attach it to the account certifying that F. H. Smith and Frank H. Smith are one and the same parties.

We have had some trouble lately on account of Form 5 vouchers not being signed by the firms so that they agree with the name as made out at the top, that is some voucher would be made out Frank Smith & Co., at the top, and signed F. Smith and Co. at the bottom, below the items. We generally have trouble getting such accounts passed without delay. It is suggested that the voucher be left blank at the top when sent to a man or firm to be signed, then it can be very easily filled in at top to agree with the usual manner of signing the firm name at the bottom. Try this.

A careful observance of these suggestions will facilitate the handling of the accounts and reduce delays considerably.

FIELD MEETING:

Don't forget the big field meeting to be held this year. Every field man connected with this office is expected to contribute something to the good of the service. Get your material into shape at once and write Mr. Cole at Denver concerning the matter. We want to make this the biggest field meeting we have ever had.

CEREAL INVESTIGATIONS
☆ MAY 24 1913 ☆
RECEIVED

OFFICE OF DRY LAND AGRICULTURE,
BUREAU OF PLANT INDUSTRY.

May 24, 1913.

REPORT FOR WEEK ENDING MAY 17, 1913.

ARDMORE:

A crew of carpenters are busy constructing the new office and laboratory building. About 75 acres are now utilized for plat work on this station and another 40 acres will be broken this spring for field crops. The rainfall of .85 inches on the 13th and 14th left the ground in excellent condition and the prospects for a good crop this season are much better than they were a year ago. Total precipitation for the week, .85, maximum temperature, 79, minimum 34.

AMARILLO:

All grains are making some growth, especially the spring wheat. Field peas are in better condition this year than ever before. Most all of the spring grains have good stands, although there are a number of thin strips through some of the plats and the height is not uniform. Native vegetation has made a rapid growth and the cattlemen are well pleased with present conditions. Several train loads of cattle have been shipped to market while a number have been shipped in to be put on range. The farmers are organizing a local institute. A new implement shed is being erected on the station, size 28 by 42 feet. Maximum temperature for the week, 91, minimum, 44, no precipitation.

DALHART:

A .20 inch rain fell Saturday night which brings the total precipitation for the month up to 2.35. This has put the soil in excellent condition for planting and it is hoped that the greater part of the cultivated crops can be planted early next week. Maximum temperature for the week, 88, minimum 42.

EDGELEY:

The past week has continued quite cool and cloudy with two light rains. Growth has been slow but all of the crops are looking well at the present time. Precipitation for the week, .62 inches, maximum temperature, 74, minimum 33.

GARDEN CITY:

All the corn, kafir, milo and cane plats were planted this week. The hard rain of May 10 put the seed-bed in excellent condition as to moisture. Young grasshoppers are very numerous and bran and paris green is being spread over all the plats in the hopes of killing the greater number off before much damage is done. F. B. Milligan, of the Bureau of Entomology, has been instructed to investigate this grasshopper trouble and see if it can be controlled. Spring grains on the rotation plats are making rapid growth and are just beginning to joint.

HAYS:

The weather during the first part of the week was very favorable for all growing crops but the past three days have been warmer and more or less windy, so that the soil has been drying very rapidly and some of the crops are beginning to wilt. Maximum temperature for the week, 86, minimum 39. The D. L. A. plats were visited during the week by the President, Director, and three of the Board of Regents of the State Agricultural College, a few members of the Hays Commercial Club and several people from neighboring towns.

HETTINGER:

Cold weather still prevails and crops are making very little growth, although all small grains are up. From present appearances it would seem that the Russian Thistle this year will not be quite so hard to control this season as they were last, since they have made an unusually early growth and the spring cultivation is disposing of a large part of them. Precipitation for the week, .49 inch, maximum temperature, 74, minimum, 32.

MANDAN:

The breaking east and south of the barn has been continued. Planting of the windbreak has been continued and the evergreens to be planted this year are all in. Planting of trees, perennials and evergreens on the creek bottom piece has been continued. All planting of trees this week as well as last, was followed by a good watering with two tank wagons. We had about one half inch rainfall this week but it was not enough to be of any benefit to the trees, altho it will aid in giving the vegetables a start. Some more vegetables were planted including melons and beans. Peas, lettuce, radishes, spinach turnips and rutabagas are coming up sparingly. Another large assostment of nursery stock arrived today which has been heeled in preparatory to planting. The fill which is being made across the creek bed, as part of the road is about two-thirds completed. The grading of the road leading to the buildings has also been begun. The first carload of brick arrived today. Bids for supplying the rough lumber for office, supt's. residence and two cottages were opened today. The Moss house foundation is completed and that of the Supt's. residence practically so. The walls of the barn and machine shed have been sheathed in and work on the roof has been commenced.

TUCUMCARI:

During the first part of the week plantings were completed with the continuous cropping series of broom corn, cotton, kafir and the variety cotton. Part of the milo and cotton in the rotations were also planted the first part of the week. Nearly all of the week there have been steady warm winds from the southwest and the upper surface of the ground is becoming quite dry. No further plantings will be done until more rain is received. No precipitation during the week. Maximum temperature, 92, minimum, 40.

AKRON:

The past week has been very favorable for plant growth. Winter wheat and rye is jointing and small grain is stooling well. Precipitation for week, .54 in. maximum temperature, 70, minimum 33.

DICKINSON:

Small grains are commencing to show up quite green in the rotation plats but have not commenced to stool yet. Winter rye is beginning to shoot. Precipitation for week, .44 in. max. temp. 73, min. 30. Week has been mostly cloudy with precipitation on five consecutive days. A light snowfall occurred on the 19th.

SCOTTSBLUFF:

A severe hail storm on Monday and heavy rains on Tuesday and Wednesday of the week broke the dry spell. Hail two inches in diameter accompanied by high wind beat the small grains to the ground and badly cut the alfalfa and rye. Many windows in the farm buildings were broken. Precipitation for week 2.9 in. max. temp. 65, min. 41.

JUDITH BASIN:

No field work done during the week on account of rain every day. Precipitation during week .55 in. and still stormy.

HUNTLEY:

The corn plats have been plowed during the week. Small grains on spring plowing not as uniform stands as on other plats. Winter rye is well along in boot. Precipitation during week, .43 in. max. temp. 70, min. 33.

NORTH PLATTE:

Intermittent periods of cool weather during the week enabled small grains to hold their own. All winter rye plats are beginning to head at a height of 12 to 24 inches. All corn plats were planted May 12 and 13. The corn ground worked up in good condition and plenty of moisture was present to insure germination. Max. temp. for week, 77, min. 38, precipitation .19 in.

WILLISTON:

The weather still continues cool and as a consequence the soil is slow in warming up and crops are not progressing as rapidly as they should. The rains during the latter part of the week will insure a good germination of the corn plats and clover which was seeded during the past week. Precipitation for the week, 37, maximum temperature, 72, minimum, 27.

FIELD MEETING: Don't forget the big field meeting to be held this year. Every field man connected with this office is expected to contribute something to the good of the service. Get your material into shape at once and write Mr. Cole at Denver concerning the matter. We want this to be the biggest field meeting we have ever had.

Office of Grain Investigations

CEREAL INVESTIGATIONS
☆ JUN 2-1913 ☆
RECEIVED

OFFICE OF DRY LAND AGRICULTURE,
BUREAU OF PLANT INDUSTRY.

May 31, 1913.

REPORT FOR WEEK ENDING MAY 24, 1913.

AMARILLO:

Corn was planted on the 15th germinating nicely and an excellent stand was secured on all the plats except those that were listed. It is very evident that listing does not provide a satisfactory seed bed for there is not enough loose soil to cover the seed when planting. The seed are left on the hard surface at the bottom of the lister furrow and this soon dries out. Peas and small grain made some growth this week but they are now suffering a setback from drought. Wheat is beginning to shoot and the oats are heading out. The only plats that are not beginning to wilt and turn yellow are those that are on land that was previously fallowed. Present conditions are an excellent example of the necessity of stored moisture in the soil to tide crops over a period of dry weather. Because there was no moisture in the soil to start with, the small grains have had to depend on the spring rainfall, which has only amounted to 3.66 inches since March 1st, and now it has been used up. It will take several good rains to mature a crop and the present outlook for a small grain harvest is unfavorable. Soil moisture samples taken on corn last week show that the spring rains added 5.5% to 6.0% of water to the first foot, 2.5% to 4.0% to the second foot, while below that there has been no change. Precipitation for week, .01 in., max. temp. 89, minimum 47.

ARDMORE:

The weather has been entirely too cold for satisfactory plant growth although the small grain crops are getting fairly well started. Total precipitation for week .08 in., max. temp. 81, min. 34. Nearly all the farmers in the locality planted corn this week. Two new oil pull plows were purchased by farmers in the vicinity this spring, and are being used to break up several hundred acres. The work in done much better and more satisfactorily than can be done with any team. Mr. Sarvis, the new Assistant is erecting a pretty cottage on the station at his own expense.

GARDEN CITY:

The weather for the past week has been very irregular. The rains came mostly as very light showers that were of very little benefit if any. The corn seeded over a week ago is up and the stand is good. Wheat plats are beginning to show the effects of dry hot weather. Plats prepared in the spring either by disking or plowing are showing the effects badly, while those that were prepared in the fall are not wilting as much and the wheat on fallow plats not at all. The same is true for both the barley and oats. All the small grains are beginning to form heads with the stalks ranging from three to ten inches in height. Potatoes especially are looking well and are apparently growing as well as any that have been irrigated. The stand is between sixty and eighty per cent.

HAYS:

The weather during the week has been about normal. Precipitation .53 in. max. temp. 93.5 min. 51.5. All spring seeded crops are making a good growth. Winter wheat is wilting badly except on fallowed plats, where it is not so evident as the other plats.

MANDAN:

The fill across the creek bed has been completed as well as the road leading up to the building site from the county road. Three carloads of brick have arrived and one car of lime. On Friday and Saturday about 6 teams were employed hauling brick. The foundation for the Supt's residence is completed and that for the first cottage practically so. Excavation on the second cottage basement has been commenced. The trusses and rafters on the machine shed are all on and roofing is well under way. Some breaking has been done south of the barn. Sunday night and all day Monday we has an excellent rain, the precipitation amounting to slightly more than an inch. Fortunately it was sufficient to make watering after planting unnecessary. In the windbreak the Laurel-leaf willow, Ulmus pumila and most of the Ulmus americana were planted. Some field corn was planted, several varieties of potatoes, sweet corn and beans, squashes, pumpkins. Cabbage and cauliflower plants were set out. On the creek botton piece dahlias and cannas were planted. Here were also planted the ten pounds of Caragana seed from Canada and 1,000 siberian crab seedlings which had been secured from a Minnesota nursery.

DALHART:

Although all crops have made a good growth during the past week, the small grain and alfalfa plats are getting dry and a good rain is needed. All of the rotation and a greater part of the variety cultivated crops have been seeded and there is doubtless moisture in the ground to bring them up in good shape. Weeds are getting troublesome. The weather has been very pleasant with but little wind. Maximum temperature for week, 93, minimum 47.

HUNTLEY:

The weather during the first part of the week was cloudy with light rains but during the latter part it was warm and crops made a rapid growth. Corn was planted on the 23rd. Precipitation for week, .52 in. Max. temp. 80, minimum 34.

TUCUMCARI:

Broomcorn, kafir, and cotton planted the previous week is coming up. Spring wheat, oats and barley are holding their own but are not making much growth on account of dry weather. Nights have been remarkably cool.

AKRON:

Winter wheat is jointing and winter rye beginning to head. Spring grain is growing nicely but winter wheat on all the plats not summer fallowed is beginning to suffer from drought. Alfalfa sown broadcast is wilting in spots. Mr. cole and Mr. Burr visited the station Thursday and Friday. Precipitation for week, .02 in. maximum temperature, 84, minimum 38.

DICKINSON:

The fore part of the week continued cool from the week before, but the latter part was quite warm. Maximum temperature, 73, minimum, 32, precipitation, 1.09, in two good rains which will help germination materially. Winter rye is making rapid growth and is beginning to show signs of heading.

EDGELEY:

With the exception of the 23rd the past week has been quite cool and cloudy, with light rains during the first part of the week. All crops doing well at the present time except red clover. The stand is poor and it is doubtful if any crop at all is produced as weeds are coming up quite thickly in it. Precipitation for week, .44 in., maximum temperature, 76, minimum, 35.

JUDITH BASIN:

All spring grains are up and growing nicely, almost perfect stands having been obtained on all plats and field seeding. Precipitation for week, .2 in.

NORTH PLATTE:

With the exception of two days the weather has been rather cool and favorable for the growth of small grains. Winter wheat on summer tilled land is in excellent condition while that on continuous cropping is in very bad condition. Spring grains are doing well. Corn planted May 12 and 13 is just coming through the surface. Precipitation during the week, .52 in. (.48 in. of this fell on the night of 19th), maximum temperature, 87, minimum, 39.

SCOTTSBLUFF:

Two showers and very favorable growing weather for the week left the crops in excellent condition. Precipitation for week, .44 in., maximum temperature, 67, minimum, 42. Mr. Cole and Mr. Burr visited the station on the 25th, expecting to stay a couple of days. Clover and alfalfa plats were seeded during the week.

WILLISTON:

The cool spell has been broken and the weather is warm and rain came in good time to cause grain to germinate, thus insuring a more even stand. The maximum soil temperature the latter part of the week was 88 which is a marked increase over any mark this season. Precipitation for week, .62 in., maximum temperature, 78, minimum, 54.